PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION See Form PCT/IPEA/416	
F120022004AH		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/FI 2003/000802	29.10.2003	08.11.2002
International Patent Classification (IPC) or national classification and IPC		
C09K 5/20		
Applicant		
FORTUM OYJ et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
   a. ☐ *(sent to the applicant and to the International Bureau)* a total of _____ sheets, as follows:
      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))
      _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:
   - ☒ Box No. I Basis of the report
   - ☐ Box No. II Priority
   - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - ☐ Box No. IV Lack of unity of invention
   - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - ☐ Box No. VI Certain documents cited
   - ☐ Box No. VII Certain defects in the international application
   - ☒ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
24.05.2004	14.02.2005
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer Bengt Christensson/MP Telephone No. +46 8 782 25 00

Form PCT/IPEA/409 (cover sheet) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/FI 2003/000802

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☒ This report is based on a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

☐ international search (under Rules 12.3 and 23.1(b))
☐ publication of the international application (under Rule 12.4)
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

☒ the international application as originally filed/furnished

☐ the description:

pages _____ as originally filed/furnished
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____

☐ the claims:

pages _____ as originally filed/furnished
pages* _____ as amended (together with any statement) under Article 19
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____

☐ the drawings:

pages _____ as originally filed/furnished
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/figs _____
☐ the sequence listing *(specify)*: _____
☐ any table(s) related to the sequence listing *(specify)*: _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/figs _____
☐ the sequence listing *(specify)*: _____
☐ any table(s) related to the sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/FI 2003/000802

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-7	YES
	Claims		NO
Inventive step (IS)	Claims	1-7	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-7	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The invention

The claimed invention concerns a water-based coolant fluid. The fluid is also a protective fluid for engine applications.

An object of the invention is to provide a coolant fluid with improved corrosion prevention properties.

The aim is achieved in that the fluid comprises trimethyl glycine.

Cited documents

These documents are cited in the International Search Report. The citations are considered to describe the most relevant prior art:

D1) WO-A1-9731988

D2) WO-A1-9911730

A heat transfer/cooling fluid used in e.g. motor applications is already known from D1 (p 1, lines 10-11). According to this document, corrosion has forced users to seek effective corrosion inhibitors (p 2, lines 29-31). The heat transfer/cooling fluid thus contains trimethyl glycine and water (p 3, lines 19-28). Together with the fluid according to D1, it is possible to use conventional corrosion inhibitors, stabilizing agents and marking agents (p 4, lines 6-8).

Reference is also made to D2 which describes the same technology as that of D1.

.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of: Box V

Analysis

D1 is cited in the International Search Report as a document of particular relevance and is now considered to show the closest background art. The reason for this review is that although D1, on lines 10-11, states that heat transfer/cooling fluids are commonly used in motor applications, nowhere in D1 is suggested to use or add a composition containing trimethyl glycine into engines or motor applications. On the contrary, on page 4, on lines 18-21, it is stated that the heat transfer/cooling fluid (according to D1) is suitable for use in applications in which the temperatures are low. Such applications include solar heat systems, heat pumps, refrigeration equipment, ventilation and air conditioning equipment and solar panels. Nowhere in this publication is suggested to use a solution containing trimethyl glycine in engine applications, wherein the durability requirements relating to pressure, temperatures and corrosion are completely different.

The reasoning for the present invention also holds in light of D2. Nowhere in D2 is it suggested to use a liquid containing trimethyl glycine in engine applications.

The claimed aqueous solution containing trimethyl glycine according to claim 1 is considered to give rise to an unexpected technical effect, i.e. functioning in engine applications. Thus, this claim is not considered to describe a technique that is obvious to a person skilled in the art.

Conclusion

In accordance with the arguments stated above, the invention in claims 1-7 is novel, considered to involve an inventive step and has industrial applicability.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/FI 2003/000802

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Page 23 in the description is written in French.